

DEMONSTRATING PUMPING RATES FOR FIXED RADIUS DELINEATION USE APPROVAL

The 3,000 ft. fixed radius wellhead protection area (WHPA) delineation is allowed as an option designed for use by systems that pump less than 100,000 gallons per day (gpd) and therefore, it is not allowed for systems that pump 100,000 gpd or more.

To assure that systems using the fixed radius method of delineation are not pumping greater than 100,000 gpd, prior approval to use the fixed radius method is required. Prior approval is granted when it is shown that facility does not average more than 100,000 gpd pumping.

IDEM prefers that a system provide five years of monthly pumping data for the facility to show that the facility does not average more than 100,000 gpd pumping. This data may be obtained from pumping reports submitted to the Indiana Department of Natural Resources (IDNR), the monthly report of operation (MRO) submitted to IDEM, or from the system's own records. However, knowing that many systems do not and will not have five years of monthly pumping data prior to the small system wellhead plan submission deadline of March 28, 2002, IDEM recognizes the need to allow other demonstrations of average pumping rates.

Therefore, systems that do not have five years pumping data, but can show the maximum pumping capacity of their system is less than 100,000 gpd can get approval to use the 3,000 ft. fixed radius. Maximum daily pumping capacity is demonstrated by multiplying the maximum hourly pumping rate (found in the pump specifications or owner's manual) by 24 hours.

If the above calculation indicates the system has the capacity to pump 100,000 or more gpd, the system must provide at least one month's pumping data to show actual pumping is less than 100,000 gpd for contingent approval to use the 3,000 ft. fixed radius. Note, pumping data from either a flow meter or an hourly meter is sufficient to show actual daily/monthly pumping rates. The system will need to continue to collect pumping data to verify their pumping remains less than 100,000 gpd.

For systems whose pumping records indicate that they generally pump less than, but close to 100,000 gpd, IDEM will apply an appropriate statistical analysis to determine an upper confidence level 100,000 gpd or less prior to granting approval for the system to use the 3,000 ft. fixed radius.

IDEM will review submitted pumping rate information and will notify the system in writing if the system qualifies to use the 3,000 ft. fixed radius. If qualified, this notification will serve as IDEM's approval for the system to use the 3,000 ft. fixed radius. A copy of the approval must be submitted with the system's wellhead protection plan.